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THE KASKASKIA EXPERIMENTAL FOREST
CARBONDALE BRANCH STATION

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CENTRAL STATES
FOREST EXPERIMENT STATION
Columbus 15, Ohio

Harold L. Mitchell, Director

MISCELLANEOUS RELEASE Nº 2

SEPTEMBER 1948

STAFF

Carbondale Branch Experiment Station
Post Office Building
Carbondale, Illinois

Richard D. Lane, Officer in Charge
Leon S. Minckler, Silviculturist
Glenn Deitschman, Junior Forester
Cleo Caraway, Secretary

Kaskaskia Experimental Forest
R. F. D. #3
Elizabethtown, Illinois

Donald L. Fassnacht, Superintendent
Robert K. Train, Assistant Superintendent

THE KASKASKIA EXPERIMENTAL FOREST

A FOREST LABORATORY
IN THE SOUTHERN ILLINOIS UPLANDS

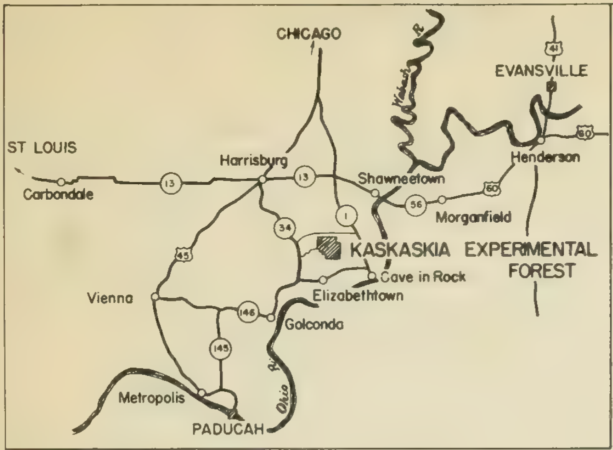
Foresters' homes and offices are located at the woods laboratory, bringing forest research to the forest.

The Kaskaskia Experimental Forest is a laboratory where theory is tested and forest practices are developed and applied. Here is the meeting place of research and action. The subject is trees and forests--from seed to sawlogs. The objective is to learn how best to grow forests on present and prospective forest lands. Application of the results should greatly increase the contribution of the forest to the people --- should provide greater prosperity to landowners, give more jobs, supply better fishing and hunting and other forms of recreation, and reduce flood damage.

EXPERIMENTAL FOREST LOCATION

The Experimental Forest is located in the picturesque hills of Hardin County, Illinois, within the Shawnee National Forest. It is near the Ohio River, 25 miles south of Harrisburg and about 8 miles north of historic old Elizabethtown and Rosiclare. State Highway 34 passes within five miles of the forest. All-weather roads with directional signs lead from the highway to the woods laboratory.

The map will direct you to the Forest, and the resident foresters will guide you through it. You are welcome.

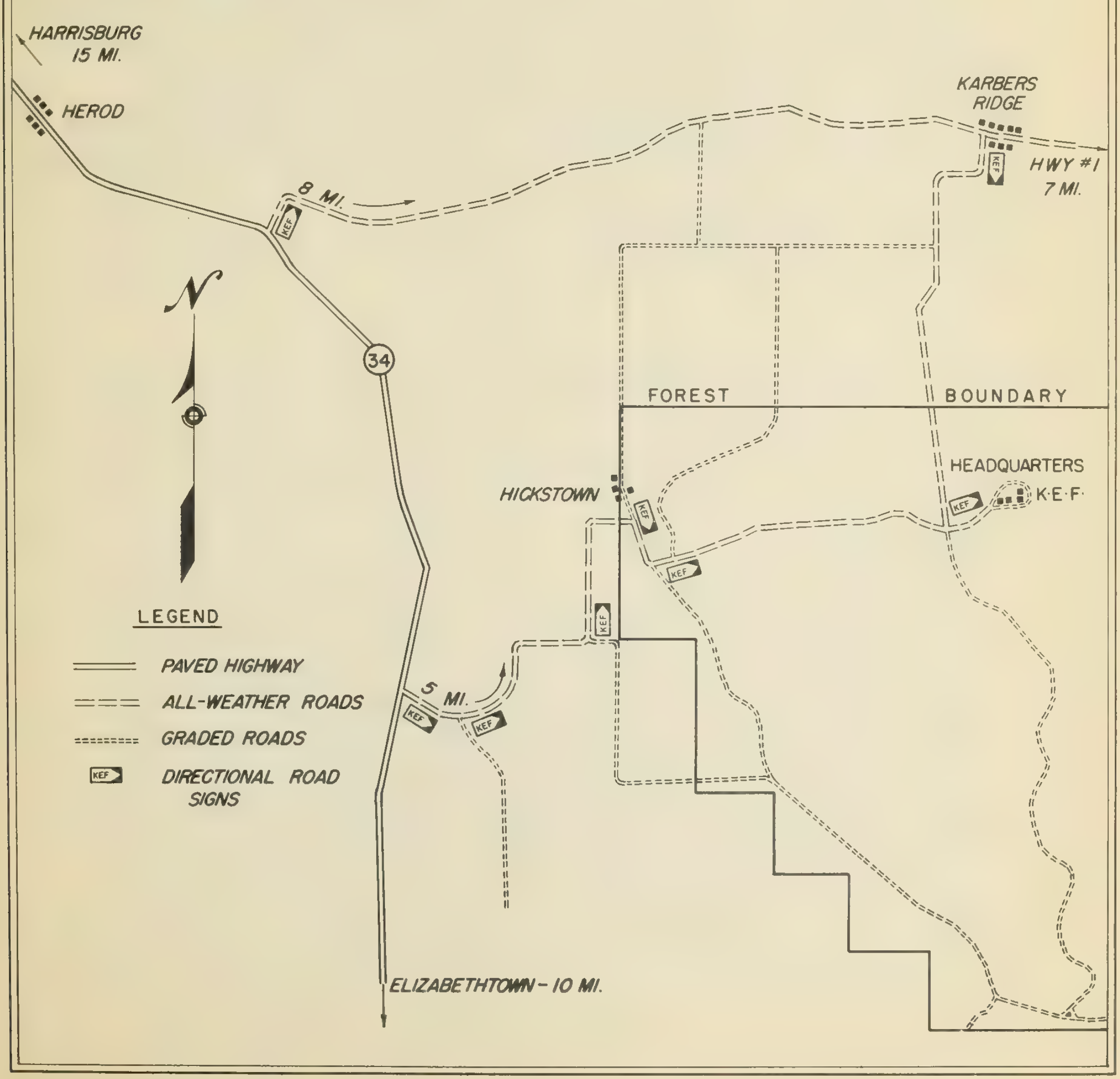


DISTANCES TO

KASKASKIA

EXPERIMENTAL FOREST

FROM:—	*MILES*
CHICAGO, ILL.	*345*
ST. LOUIS, MO.	*135*
EVANSVILLE, IND.	*75*
PADUCAH, KY.	*50*
CARBONDALE, ILL.	*65*
HARRISBURG, ILL.	*25*
ELIZABETHTOWN, ILL.	*15*



EXPERIMENTAL FOREST DEVELOPMENT

LAND USE HISTORY

The hills of southern Illinois were first settled about 1800, but the most active period of development occurred between the Civil War and 1890. Until 1885, potatoes were the only commercial crop. They were followed by wheat, and later by corn. Without soil-conserving practices, much of the land once cleared for farming is now worn out. Some of it has been abandoned and is returning naturally to forest. Some of the remainder is no longer profitably producing row crops or pasture. Forestry is now the most profitable use for a significant portion of this worn-out land.

Since settlement days those forests not cleared for farming have been severely burned, grazed, and left to grow like "Topsy". They are characterized by poorly formed and defective trees of low value. These unmanaged forests now yield low returns to the owners.

Although the time of settlement and kinds of crops may have varied somewhat, this same general land-use pattern has occurred throughout the uplands of southern Illinois, western Kentucky, southwestern Indiana, and southeastern Missouri. In this broad area there are more than four million acres of uplands. One-third of this area is now in timber, and forestry may be the most profitable use for another one-third.

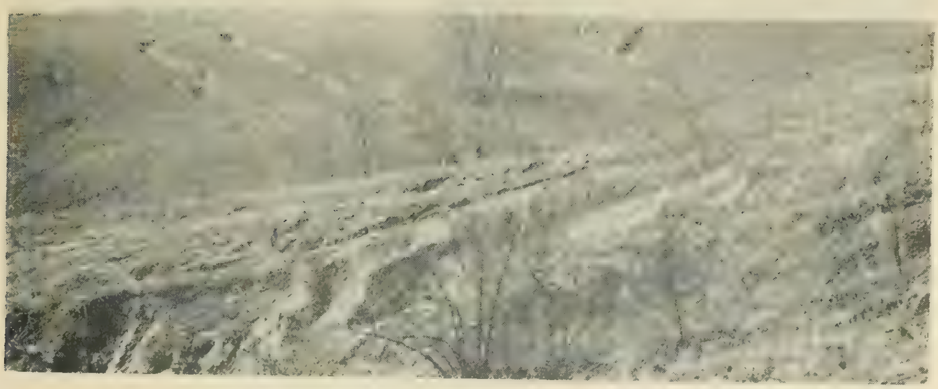
Soon after 1930 it became apparent that an experimental forest was needed to develop the scientific basis for managing these forests and prospective forest lands, and to serve as a focal point from which new and improved methods of forest land management would radiate. Application of these methods leads to better utilization of the forest resources of this great upland area for the benefit of present and future generations.

FIELD LABORATORY ESTABLISHED

In 1935 the Kaskaskia Experimental Forest was established within the Shawnee National Forest. An area of approximately 1700 acres has been acquired and is used for research. Homes, offices, a garage, and warehouse were built immediately after the woods laboratory was established. Maps have been prepared, forest boundaries marked, roads built, and necessary research equipment provided.

Research was undertaken on a small scale as soon as the Forest was created. During World War II all activities except maintenance were terminated. Establishment of the Carbondale Branch of the Central States Forest Experiment Station, U. S. Forest Service, in the fall of 1946 permitted reactivation of the Experimental Forest. Earlier forest research plots have been reexamined and new studies initiated.

WASTELANDS WILL GROW TREES



This wasteland is the result of poor land management. It serves no useful purpose for society, and should be put to work growing trees.

Trees can be planted and grown on most wastelands. For ultimate success, plantations require the application of sound principles of forestry and land management.

FORESTS CAN BE MANAGED

This beautiful and productive forest will yield an income for its owner. Good management is the key to a paying forestry business.

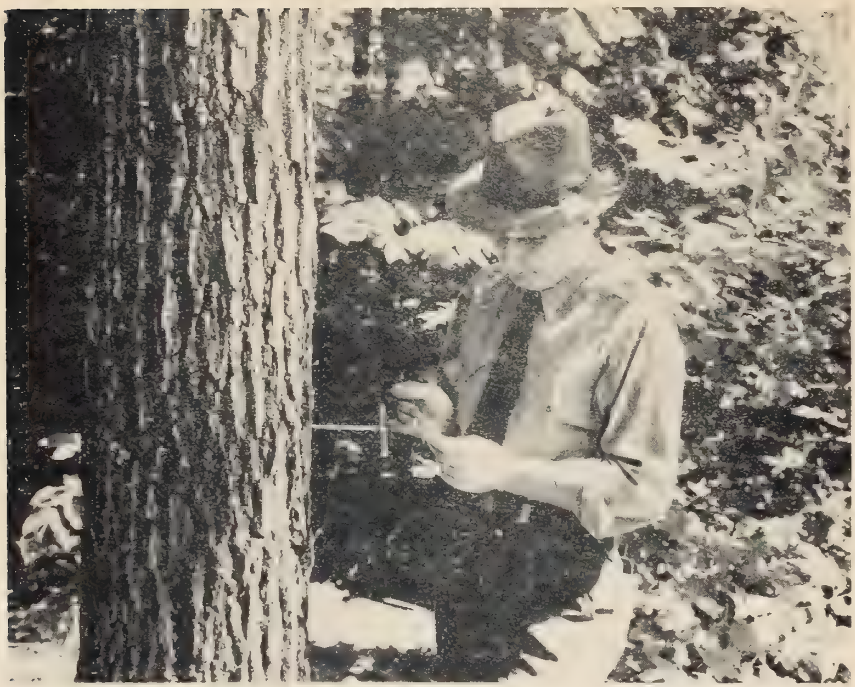
This unmanaged forest is a business liability. The poorly formed and defective trees must be removed to make room for valuable "producers".

MAJOR RESEARCH ACTIVITIES

FARM WOODLANDS

A farmer and his son using "off-season" time to good advantage in their woods. A properly managed farm woodland means money in the farmer's pocket.

Almost 90 percent of the forests within the area of uplands served by the woods laboratory is in small farm woodlands. Conversion of these stands to managed forests is of prime importance to the landowner and to the economy of the area. To determine and to demonstrate good management methods and earning capacities, two farm woodland tracts have been set aside. Each of these contains about 25 acres. One is typical of the better farm woodlands, ready to produce a continuous income. The other is representative of the poorer run-down woodlands that must be rebuilt before maximum returns are possible. These timber stands will be living demonstrations of good farm forestry practices.



Forest research requires careful measurements and study. Here a forester is measuring the diameter growth of a black oak by use of an increment borer.

When recommending improved forest management practices to woodland owners, foresters are called upon to answer such questions as: "How can I manage my forest for the greatest income? Should I cut all of my timber now, or should I cut a little each year? What trees should I favor?" To answer these and many similar questions, almost 800 acres of the field laboratory are being used for experimental forest management. This area has been divided into 36 compartments of about 20 acres each. Fifteen different management systems are being tried out on these compartments. Cost and return figures will be kept. The forest stands will show the results of each management system.

FOREST MANAGEMENT PROVIDES FOR HARVESTING WOODLAND CROPS

The products grown on the Experimental Forest are harvested by crews of local men and sold at nearby markets. All harvesting operations are supervised and controlled by the resident forestry staff.

Efficient cutting methods are used in timber harvesting on the Experimental Forest. This view shows a gasoline-driven chain saw in action. The woodland owner can often obtain the greatest returns by harvesting his own forest products and by using modern equipment.

This nearby sawmill saws logs produced on the Experimental Forest. Thus the Experimental Forest aids local industry, and the local market outlet aids research.

EXPERIMENTAL PLOTS

The answers to numerous questions about tree planting and forest management can be obtained from small, inexpensive plots. Many such plots have been laid out in the forest laboratory and others will be added as work progresses.

Experimental plots are often small and inconspicuous, but they provide the basic scientific knowledge needed for the practical application of good forest management. Research through experimental plots will be a major activity on the Experimental Forest.

PILOT PLANTS

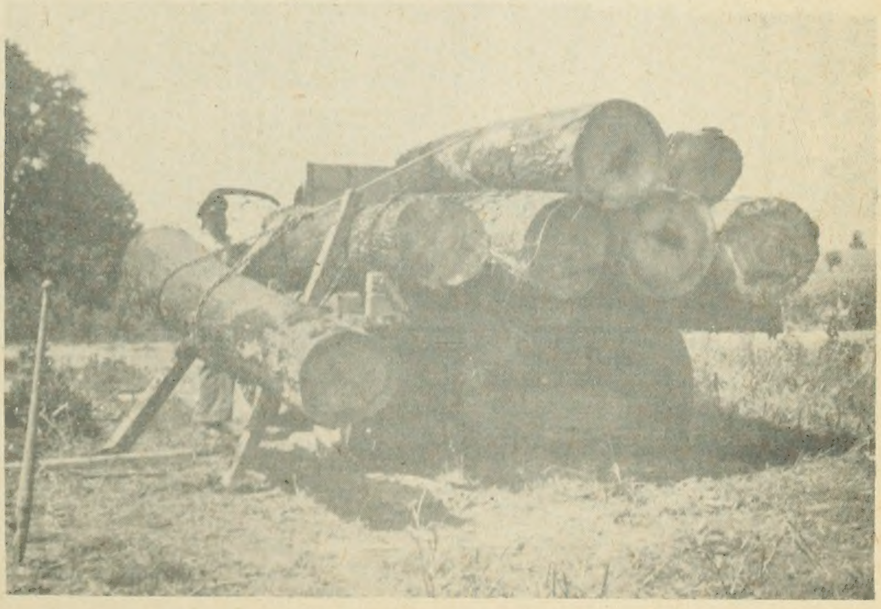
Pilot plants are a testing ground for methods and conclusions discovered by intensive research. For example, 400 acres of woodland is being used as a forest management proving ground. Here the most promising methods developed in connection with the 36 experimental compartments will be given a final practical test. This is not research; it is forest management in action.

The old and the new in tree planting. New practices such as this mechanical planter are tested in a pilot plant for practical application and determination of costs.

DEMONSTRATIONS

One of the major activities at the forest laboratory is the demonstration of forestry techniques and the results of their application. These demonstrations include different cutting practices, planting methods, response of different tree species to soil conditions, management of young plantations, and others. The use of forestry tools and harvesting equipment is also demonstrated.

A 10-acre tract of undisturbed forest at the Experimental Forest headquarters provides a natural area for Kaskaskia visitors. It shows how the original upland forests in southern Illinois looked to the first settlers.



A self-loading logging truck in action. This is one of the pieces of equipment used and demonstrated on the Kaskaskia Experimental Forest.

MAIN RESEARCH PROJECTS
ON THE
KASKASKIA EXPERIMENTAL FOREST

LEGEND

① - Headquarters Area

② - Natural Area

③ - Cutting Practice Demonstrations

④ - Plantations (planted 1935) Thinning & Pruning

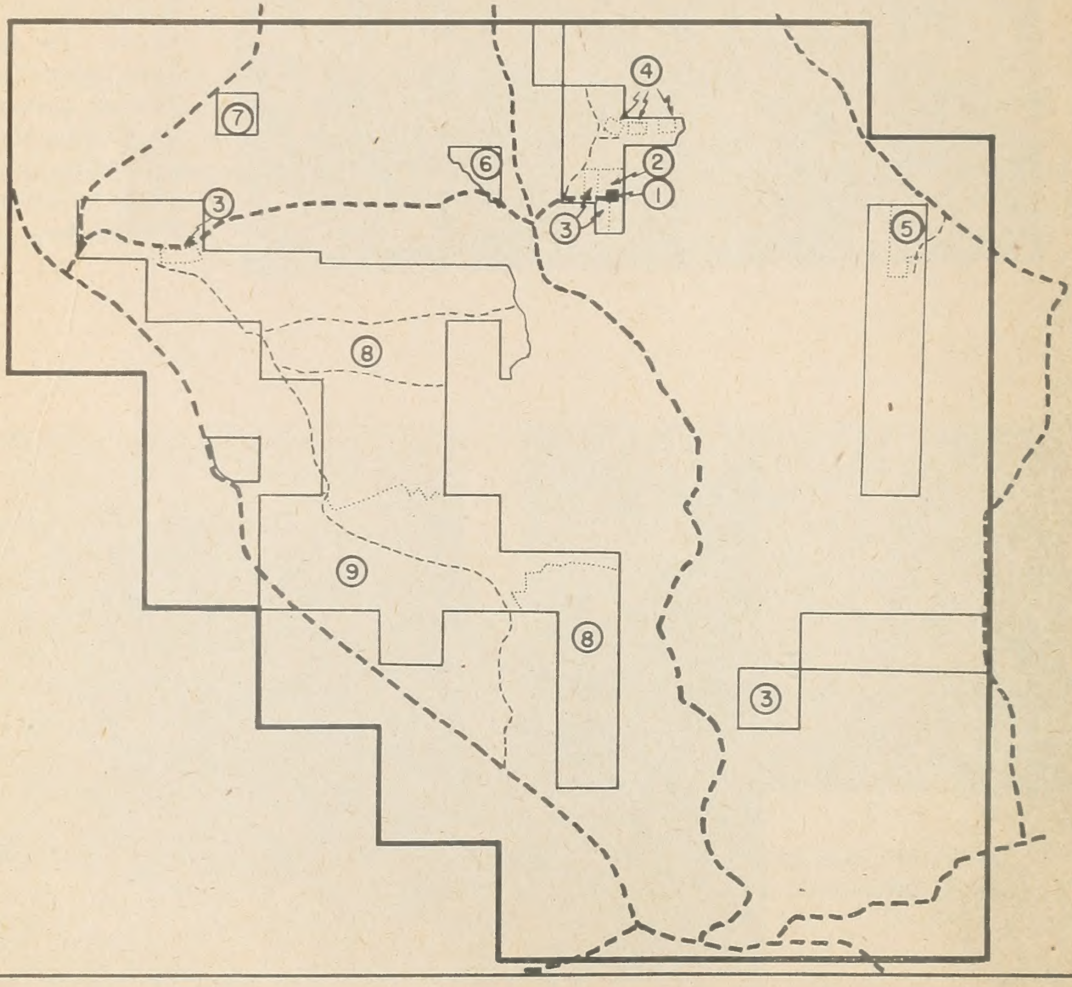
⑤ - Plantations (planted 1947) Species Adaptation, Planting Methods, Direct Seeding

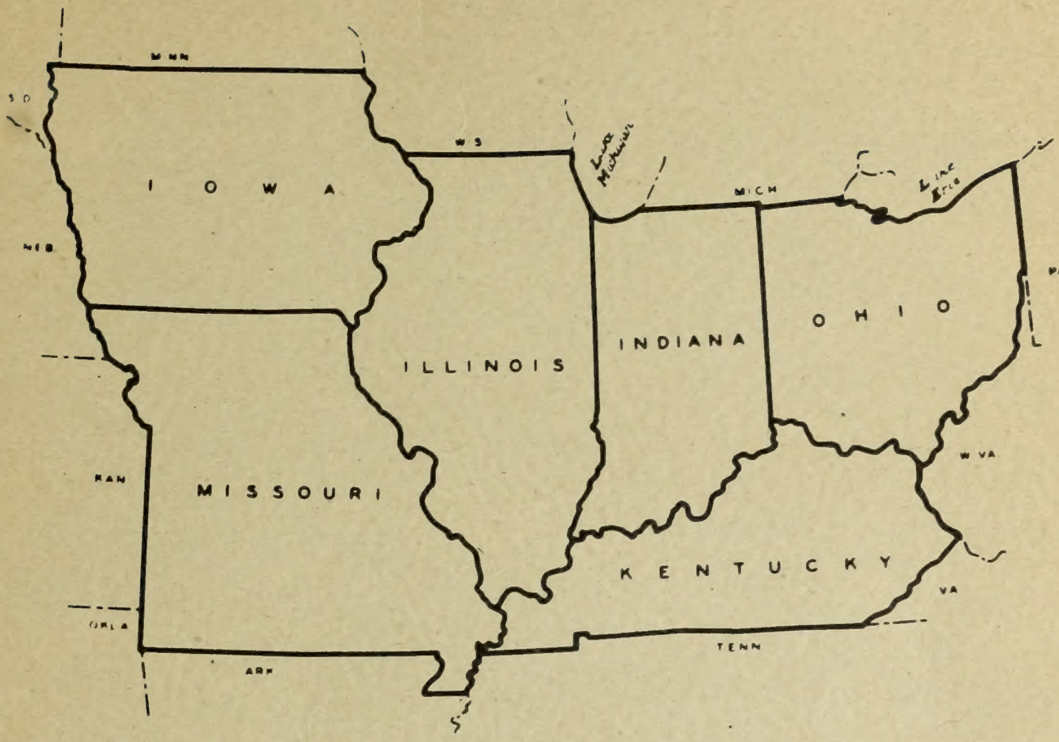
⑥ - Farm Woodland Demonstration Good Stand

⑦ - Farm Woodland Demonstration Poor Stand

⑧ - Compartments For Management Practices Research

⑨ - Management Unit





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